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Case of Bright's Disease—with Remarks.

By WILLIAM P. JOHNSTON, M. D.

To the Editors of the Medical Examiner.

GENTLEMEN,—I have the honour to enclose you a case of the disease of Bright which fell under my care some time since. As this disease is but rarely noticed in our medical periodicals, you may, perhaps, deem the case as of sufficient practical importance to merit a place in your valuable journal.

With much respect,

Your obedient servant,

WILLIAM P. JOHNSTON, M. D.

Washington, D. C., June 15th, 1842.

Chronic Disease of Bright—Nephritis Albuminosa, or Granular Degeneration of the Kidneys.

(Intermittent Fever for fourteen months—Occasional swelling of face—Dull pain in lumbar region—Subsequently, œdema of ankles—Ascites, and finally general dropsy—Death. At the autopsy, granular degeneration of the kidneys, and enlargement of the spleen—Remarks.)

Lemuel Williams, æt. 20, of good muscular development and temperate habits, removed from the country to this city about two years since and commenced the trade of painter,—during this period has been a member of a fire company, and has on several occasions been exposed to cold and wet. While in the enjoyment of perfect health, Williams was attacked with intermittent fever in August 1840, in consequence of exposure at a fire, as he supposes. This, the first serious disease which he ever recollects to have had, continued for about fourteen months; the paroxysms generally occurred every other day; at times, however, the disease partook of the quotidian type, and during three successive months the quartan.

On no occasion were the chills arrested for more than one week at a time; a physician was never consulted; quinine was not taken.

The period at which the œdema first commenced cannot be accurately determined; his friends say that they recollect his face was sometimes swollen during the spring of 1841. The patient himself first remarked swelling about the ankles in the autumn following, which generally disappeared after walking. Three weeks before Christmas noticed that the abdomen was unnaturally developed; three or four days after observed the swelling of the face, and subsequently the œdema of legs and feet.

Once commenced, the dropsical effusion increased little by little, till finally he could with difficulty see, from the swelling of face and eyelids;

the abdomen became immensely distended, and in like manner the legs and feet.

The patient has never had any marked pain in lumbar region ; felt a dull pain in this situation whenever he stooped, about a month before swelling commenced. He has never had fever except after chills ; appetite has continued natural ; thirst moderate ; urine has decreased in quantity. He has coughed for about three weeks without expectorating ; no soreness of the throat ; voice hoarse for a few days only.

The treatment has chiefly consisted of purgative mixtures, prescribed by a quack, which have operated pretty actively, since which swelling in the face has diminished.

Actual State, February 2d, 1842.—Decubitus dorsal, inclining to right side, not elevated. Face pale and sallow ; moderate emaciation of arms where there is no œdema ; intellectual faculties perfect ; he is cheerful and contented. Slight swelling of face, chiefly near angle of right maxillary bone, to which side the head is inclined. Abdomen considerably distended ; fluctuation perfect. Lower extremities and scrotum increased far beyond their natural size by cellular infiltration ; no pain or uneasy sensation. Pulse sixty, natural ; skin cool and always dry ; appetite very good ; thirst considerable ; tongue natural ; passes about a pint and a half of urine in twenty-four hours ; several stools since yesterday. Cough less ; dyspncea moderate. Percussion yields everywhere a natural resonance ; no marked dulness over praecordial region. On right side, anteriorly, dulness commences from half an inch to an inch below nipple. In region of spleen dulness commences about two or three inches above lower edge of ribs. Respiration vesicular and expansive, loud over praecordial region. Sounds of heart natural, no "bruit" accompanying them.

As the prepuce offered some impediment to the escape of the urine, in consequence of the œdema, it was punctured in three or four places with a needle.

A purgative, composed of senna, manna, supertart. potass., &c., was administered.

R. Spts. Æther. Nit. 3j. Muc. Lem. Lini, Oj.
To drink during day.

Examination of the Urine.—The urine is perfectly clear ; there is no sediment ; when put in a small glass vessel it appears light coloured, not unlike common champaigne. A drop of nitric acid being added, immediately we perceived a cloudy aspect, and after the addition of two or three more drops of the acid, an abundance of yellowish white albuminous flocculi appeared, which speedily sank to the bottom, occupying from the fourth to the third of the space originally occupied by the urine. Heat being applied to a vessel containing a small quantity of urine, a similar albuminous deposit occurred. Acetic acid produced no effect upon the urine. No trace of red globules visible under the microscope.

4th. Passed from one to two pints of urine last night ; more than he has heretofore voided in twenty-four hours. Several stools.

Scrotum measures eighteen inches in circumference. Abdomen, on a line with umbilicus, about three feet eight inches. Right thigh, superiorly, about twenty-one inches.

R. Pulv. Scillæ, gr. ij. Hyd. Chlor. Mit. gr. ss.
Potass. Nit. gr. xij. q. 4 h.

7th. Last night patient was seized with violent pain in penis ; could not sleep.

8 A. M. Countenance anxious ; constant moaning. Prepuce on left side is of a dark brown or blackish colour, presenting a motley appearance ; on same side, penis is red and firm to the feel ; near the root especially, there is a hard red band, which is exquisitely painful to the touch ; the redness embraces a small portion of the scrotum in the vicinity of the pains. Skin rather hot ; pulse frequent.

Bread and milk poultice sprinkled with laudanum to painful part.

In the evening a phlyctæna, a third of an inch in diameter, had formed on left side of prepuce, from which, when punctured, a dark brownish serous liquid escaped.

The inflammation continued to spread until it occupied nearly the whole anterior surface of the scrotum. Superficial gangrene commencing at the prepuce, advanced "pari passu" with the inflammation.

On the eighth, percussion revealed a marked flatness in the posterior and inferior regions of the thorax ; its precise extent, and the character of the respiration could not be ascertained, in consequence of the feebleness of the patient. No flatness over præcordial region. Respiration more frequent and laboured.

On the 9th vomiting came on, and the symptoms became more alarming, and finally the patient died on the 10th, at 1 A. M., up to which time he continued to be perfectly conscious of his situation.

Autopsy fourteen hours after Death.

Moderate emaciation of arms and face, which are free from œdema ; no rigidity of extremities ; no vibices ; ascites and anasarca same as during life. Prepuce is partially deprived of its epidermis, and presents a yellowish appearance. Scrotum six inches long by five broad. Superficial gangrene of penis and scrotum. A similar band of gangrene, six inches long by three wide, extends on the right side, from a little above pubis, obliquely upwards and outwards.

Abdomen.—When punctured, a quantity of gas escaped from the cavity of the peritoneum. Abdomen contained about two and a half gallons of transparent citron coloured liquid. Peritoneum natural. Intestines not opened.

Kidneys.—*Left* is five inches long by two and a half wide, (not weighed.) Externally it is of a pale yellowish colour ; its external coat is easily detached ; the lobules appear rather more distinct than usual ; consistence of kidney good. When divided longitudinally, the cortical portion of the gland is seen to occupy a much larger space than in a healthy kidney ; it is of a yellowish white colour, granulated in appearance, with five short red lines, running from surface towards cones. Cones imperfect ; deficiency supplied by cortical portion.

Right.—Four and a half inches long by two and a quarter wide ; thickness one inch and a half, which surpasses that of left. Equally pale externally ; pyramids more perfect ; cortical portion not less abundant, and similar in appearance to that of left kidney.

Spleen.—Eight inches long by five wide ; dark brown color internally, and firm.

Liver.—Ten and a quarter inches wide ; greatest length seven inches ;

right lobe four and a half inches thick. Externally, the liver is of a bluish colour; internally it is dark brown, and contains a quantity of fluid blood.

Gall-bladder escaped notice.

Bladder contracted.

Thorax.—The pleural cavities contain a quantity of yellowish serum; the left about one pint. The pericardium contains a very small quantity of serum, not greater than is usually found. Heart of natural size.

(We were here obliged to discontinue the autopsy, in consequence of the hour appointed for the interment of the body being near at hand.)

Remarks.—It is impossible to say with any degree of certainty when the disease of the kidneys actually commenced in this case; that it already existed in the spring of 1841, is highly probable, for it was then first noticed that the face of the patient was occasionally swollen; this was no doubt the commencement of the dropsy, which subsequently existed in so marked a degree.

Dropsy is a symptom which accompanies many diseases, but according as it originates in one region of the body or another, remains local or becomes general; it will be found to aid us much in diagnosis. Thus, for example, in diseases of the heart, œdema first makes its appearance about the ankles and extends upwards. In cyrrhosis of the liver, and in chronic peritonitis, ascites is the form of dropsy which chiefly exists; the extremities being often considerably emaciated, while the abdomen is very much developed. In the disease of Bright, on the contrary, the œdema commences in the face, especially the eyelids, and sooner or later, often with great rapidity, the anasarca becomes general, to which effusion into the several cavities is often superadded—the dropsy thus becoming more general, and the effusion more abundant than in dropsy produced by any other cause. Protracted intermittent fever sometimes terminates in dropsy; this may depend either upon a chronic disease of the liver, chronic engorgement of the spleen, or of an alteration in the whole animal economy; but in no case will the œdema first show itself in the face, nor the effusion become as abundant and as general, as in the case which we have cited, unless the kidneys be also diseased.

Much has been said for and against albuminuria as a diagnostic sign of the disease of Bright. We do not, ourselves, regard it as pathognomonic, though assuredly the most valuable sign of this affection. Albumen, it is true, may *occasionally* be found in the urine of patients who are suffering from various diseases, but it rarely happens, except in the granular disease of the kidney, that the urine yields this principle either abundantly or for any length of time.

In the case of Williams, the anterior history, the absence of any sign of disease of the heart, the dropsy, and the albuminuria, furnished sufficient data to enable us to diagnosticate the affection of the kidneys, and to predict an enlargement of the spleen. The autopsy disclosed to us these two lesions—the granular disease of the kidneys, peculiar to the affection of Bright, and chronic enlargement of the spleen, due to the long continuance of a neglected intermittent fever. The liver, both as respects its size and internal appearance, was such as we are accustomed to regard as healthy; the increased amount of blood in this organ not being in itself sufficient to constitute disease, it would at most but be regarded as a passive congestion. The

gall-bladder unfortunately escaped notice, but it probably contained healthy bile.

ANALECTA.

[Apoplexy is a threadbare subject, but still often misunderstood ; we agree with Dr. Hall that the causes of it require to be looked into, in order to derive any good rules of treatment, and especially of prophylaxis. But in examining the causes of apoplexy, we must always bear in mind that several very different pathological conditions are attended with sudden loss of consciousness. If we restrict the term apoplexy to cases of vascular congestion or actual haemorrhage, there is always positive disease in the vessels of the brain. This may arise from disease of the heart, from general fulness of the vascular system, or plethora, or from diseases of the vessels of the brain, or even of its substance.

In other cases the loss of consciousness is connected with diminished action in the vessels of the brain ; and those cases often arise in anemic or cachetic conditions of the system, or follow dyspepsia and liver disease. The treatment of these forms requires no little modification, and the rule which requires free blood-letting in apoplexy can only be admitted with numerous modifications. W. W. G.]

At a meeting of the Medical Society of London, April 4, 1842, Dr. Marshall Hall read a paper, entitled,

Observations on the Prevention and Treatment of Apoplexy and Hemiplegia.

He commenced by saying, that in bringing the important subject of this paper before them, he had no hope that he could offer anything new. His object was rather to seek the information which its free discussion by the members of this society could not fail to elicit.

The question of the causes, nature, prevention, and treatment of apoplexy and hemiplegia was a very complicated one. He thought the attention of physicians, in reference to the prevention and treatment of apoplectic and hemiplegic attacks, had been far too much confined to the question of plethora as the disease, and of depletion as the remedy. It was to him certain that such attacks might and did occur quite irrespective of general plethora ; nay, that they occurred in connection with the opposite condition of the system, that of inanition and anaemia. Nor was a state of anaemia the only other condition besides plethora which led to the apoplectic or hemiplegic attack. Morbid conditions of the stomach and morbid conditions of the intestines were other sources of these seizures. But he had also observed the occurrence of apoplectic affections under other circumstances : other indubitably predisposing causes of the apoplectic seizure were dyspepsia, cachexia, and gout. Nor was even this view of the subject sufficiently extended ; the liver and the kidney must do their office. These sources of the

apoplectic or hemiplegic seizure consisted in conditions of the general circulatory system, and of the blood itself. There were still others of a different kind.

The first of these was disease of the heart; and this consisted, first, in hypertrophy, with augmented impulse given to the arterial blood; or, second, in dilatation of the heart and disease of its valves, impeding the reflux of the blood along the veins.

The second was disease of the capillary vessels, of the minute arteries, or of the minute veins of the brain and its membranes.

Lastly, there were causes of apoplexy in the muscular efforts, by which the action of the heart itself was augmented, as in violent running, the ascent of a mountain, &c., and in other muscular efforts, by which the return of venous blood was impeded, as the efforts of vomiting, or for the expulsion of the faeces; and still more, of parturition.

This view of the causes of apoplexy would sufficiently denote the complexity of the problem of the prevention and treatment of the apoplectic and hemiplegic attack; for that prevention depended on restoring the system to a state of what may be termed equilibrium, in regard to plethora and inanition; to the removal of irritating or morbid matters from the *primæ viæ*; to the correction of the morbid diathesis in dyspepsia, gout, and cachexia. The prescription must include remedies and regimen to meet all these circumstances, and, as he had stated, the problem was by no means either an easy or a simple one. Yet another element in the problem was that which related to the local or topical remedies. On each of these sources of the apoplectic and hemiplegic attack, he proposed to make a few observations. These observations would be principally addressed to the medical practitioner; but as far as they might relate to regimen, they might, he thought, be profitably considered by the patient.

I. Of Plethora, or Fulness.—This cause of the apoplectic or hemiplegic seizure was that which had received most attention, or rather it was that *towards* which medical opinion was most biased, not to say prejudiced. It was unnecessary for him to describe the symptoms of this condition so well known. The most satisfactory mode of treatment was to open a vein and allow the blood to flow from an ample orifice, the patient being placed in the perfectly erect position, until incipient syncope was induced: the quantity of blood which thus flowed was the diagnosis and measure of the disease in every respect. If the patient were young and robust, if the plethora were decided, and especially if there were real congestion and no laceration of the brain, a large and proportionate quantity of blood would flow before the slightest degree of syncope was manifested. No other measure afforded at once such security to the patient, and such information to the physician. It was impossible for him to speak in too high terms of the advantage of this measure in both these respects. In reference to blood-letting, there was this important question, Was the case one of *congestion* or *pressure*, or was there actual haemorrhage with *laceration* of the substance of the brain? In the former case much blood would flow before incipient syncope occurred, and much might be, must be taken; but in the latter the injury had inflicted a shock upon the system, and little blood flowed before syncope appeared; and even the loss of that little was difficultly borne. To take more would be death! It might be said that we ought to distinguish the two cases *à priori*. He replied in the words of Celsus, “*Id votum est.*” Turgidity and flushing

denoted congestion, and pallor and collapse might denote laceration. But many cases occurred in which nothing so marked was observed; and in these, in the absence of an earlier and more perfect diagnosis, he knew by experience that the plan of instituting blood-letting proposed, afforded most important and salutary information, leading us on to take more blood in the case, in which greater depletion was required, and checking our depletion in those in which it would not be either well borne or remedial. But having made and repeated this statement on other occasions, and the profession being, he believed, well acquainted with it, he proceeded at once to another topic.

II. *Of Inanition.*—It was constantly his lot to see patients who were in jeopardy not from fulness but from inanition, and who had long been kept in a state of anaemia by blood-letting, general or topical, when an opposite treatment was required to restore the equilibrium of the system, and to remove the vertigo and other symptoms threatening an attack of apoplexy. A state of pallor, a disposition to faintness, palpitation and nervous timidity, the occurrence of the symptoms when the stomach was empty, when the bowels had been relieved, and on suddenly looking upwards, or resuming the upright position on rising from bed, or after stooping, or the recumbent position: such were the diagnostic *signs* of a state of inanition from a state of plethora. The *history* of the case also afforded a diagnosis; for, although depletion might have appeared to afford a momentary *relief* of the symptoms, it had issued in their *aggravation* in general. An opposite mode of treatment, very cautiously and prudently adopted and pursued, would confirm the diagnosis, by affording a more permanent, though possibly a less immediate and marked relief. It was to the important distinction between the immediate and permanent relief, indeed, that he would draw the attention of the profession. In the case of symptoms portending apoplexy or hemiplegia, although these might arise from inanition, yet they were invariably *relieved* by depletion, although they afterwards returned with augmented force. This effect was very puzzling to the inexperienced practitioner. It was explained by the fact, that the symptoms ceased under the influence of a condition allied to syncope, but returned with the reaction. This subject must be carefully studied, in order that the nature and treatment of the case might be understood. He had next particularly to notice that the state of anaemia was not one of safety. In such circumstances apoplexy and hemiplegia, with the actual effusion of blood into the cerebrum, had occurred. Such a case was related by the late Dr. Denman: it occurred in the midst of exhaustion and anaemia from protracted uterine haemorrhage; a clot of blood was found in the cerebrum. A similar case was detailed by Mr. Travers. This latter occurred under the actual use of the lancet, and during the flow of blood from the arm. A third case occurred to Mr. Hammond, of Brixton, after parturition: the patient was attacked with hemiplegia; she gradually recovered. We might, therefore, incautiously bleed our patients into apoplexy and hemiplegia! This statement should lead us to be very wary in the use of this remedy in doubtful or protracted cases. Even in cases of injury of the brain, as in concussion, the same question presented itself. This point was admirably illustrated by the following remark of Sir Benjamin Brodie:—“Where bleeding has been carried to a great extent, symptoms frequently occur which in reality arise from the loss of blood, but which a superficial observer will be led to attribute to the injury itself, and concerning which, indeed, it is sometimes difficult even for the most experienced surgeon to

pronounce, in the first instance, to which of these two causes they are to be referred. Repeated copious blood-letting is of itself adequate to produce a hardness of the pulse, which we shall in vain endeavour to subdue by persevering in the same system of treatment. In many individuals it will produce headache and confusion of mind, not very different from what the injury itself had previously occasioned." The pallor of the countenance, the effects of position, the effects of fasting or of an active purgative, the history of the case, must be carefully considered in forming our diagnosis. The treatment would then consist in carefully restoring the system to its state of equilibrium.

III. *Of Dyspepsia and Cachexia.*—There could be little doubt that in dyspepsia the blood itself became contaminated, and, as it were, *cachectic*; on this principle we accounted for the appearance of furunculus and paronychia; for the morbid condition of the tongue and interior of the mouth, the general cutaneous surface, the secretions, &c. He had so often observed symptoms threatening the apoplectic or hemiplegic attack, in conjunction with symptoms of dyspepsia and cachexia, that he had no doubt of the vast importance of a strict attention to this subject. That very day (Oct. 1, 1841,) he had been consulted by a medical gentleman from Birmingham under these circumstances. One form of this affection was the following: vertigo occurred with faintness, sickishness, and a cold clammy perspiration; sometimes there was actual sickness, sometimes much flatus. In these cases the feet and other extreme parts were apt to be cold. The secretion of the liver was frequently defective, and the urine was apt to deposit the lithic acid salts. Nothing could be so injurious as blood-letting. In no case was the loss of blood repaired with such difficulty. The application of a few leeches frequently left a state of debility and pallor which were felt and seen for weeks. The treatment consisted in the correction of the secretions, and in the infusion of tone and general health into the system. The compound decoction of aloes, the infusion of rhubarb, of gentian, of cinchona, singly, or better, mixed together; sarsaparilla; the vinum ferri; the bicarbonate of potass, stomachics, tonics, and antacids, in a word, were the principal internal remedies. But with these a mild, nutritious diet, a system of gentle exercises, early hours, the tepid salt-water shower-bath, and a strict attention to the condition of the feet and general surface, by means of the flesh-brush, flannel, and a frequent change of shoes and stockings, should be conjoined. Those engaged in the harassing affairs of a London life should sleep in the country, and cherish the utmost quiet of mind.

IV. *Of Gout.*—But he had frequently traced a connection between gout and its frequent attendant, the lithic acid diathesis, and the apoplectic and hemiplegic seizure. It was not merely plethora, or the opposite state of inanition, which led to the apoplectic attack. The morbid state of the blood in dyspepsia and cachexia also disposes, as he had already said, to this affection. The same remark applied to the condition of the system and of the blood, especially in gout; and, as he should have to observe immediately, the same disposition obtained in several morbid conditions of the liver and kidney. A nobleman, now no more, suffered in succession from gout and the herpes zoster, and the urine deposited the lithites copiously. He was relieved by the appropriate remedies, and became affected with an apoplectic (or epileptic) attack. A similar attack (without hemiplegia) occurred several months afterwards, and a third attack proved fatal. This gentleman was pallid, the prolabium being white. A steady perseverance in such remedies as the de-

coctum aloes compositum, the bicarbonate of potass, and the vinum ferri, had in other cases effectually averted the threatened evil. But he must make another remark. The vinum colchici should be given in very minute doses, as five drops thrice a-day, also steadily and persevering to overcome the specific gouty diathesis. The lithic acid diathesis was not the only urinary disorder which led to apoplexy and hemiplegia. This attack, it is well known, occurs in the case of diabetes and in that of albuminous urine. Although he had designated the attack apoplectic and hemiplegic, it was sometimes more allied to epilepsy than apoplexy. The gentleman to whose case he had briefly adverted, was affected with minute ecchymosed spots on the forehead, which he had only observed under three circumstances, viz., after severe vomiting, the effects of parturition, and the epileptic attack ; when he saw him soon after the second seizure, the insensibility had passed away, and there was no hemiplegia.

V. *Of Disease of the Heart.*—It had long been supposed that disease of the heart is a cause of the apoplectic seizure, and hypertrophy of that organ had been fixed upon as the most influential in this respect. On this question the pathologists of France were much divided. Of the two latest writers on the subject, M. Andral was of opinion that hypertrophy was really a frequent cause of apoplexy ; whilst M. Louis was of the opposite opinion. There could be no doubt that, *cæteris paribus*, hypertrophy of the heart would co-operate in inducing the apoplectic attack ; but he thought that a much more energetic cause of apoplexy, and of congestion and haemorrhage in general, was that form of disease which impeded the return of the venous blood from the brain, viz., dilatation and valvular disease. The worst form of hypertrophy might be unattended by symptoms or appearances of congestion ; but no severe case of dilatation or of valvular disease ever existed, without lividity of the countenance, dozing, and other appearances and symptoms of apoplectic tendency. Altogether, however, we wanted a series of cases carefully taken and analysed, and statistically given, to establish the truth of the real influence of disease of the heart in inducing the really apoplectic seizure.

VI. *Disease of the Capillary and Minute Vessels.*—The influence of this cause of apoplexy was placed beyond question by post-mortem examination. Sometimes the morbid appearance was a dilated condition of the capillaries ; sometimes an ossified condition of the minute arteries (?) ; sometimes a minute aneurism. Another important topic was that of "ramollissement," or softening of the brain, as the *cause*, and as the *effect* of the apoplectic or hemiplegic seizure. In resuming the subject he might remark, that it was not plethora alone which predisposed to the apoplectic and hemiplegic attack ; the very opposite condition of the system, or anaemia, whether it arose from the loss of blood by blood-letting, or haemorrhage, or from defective sanguification, was not free from this danger ; dyspepsia and cachexia, as they induced external disease, as seen in furunculus, paronychia, &c., might also induce a paralytic affection, a morbid condition of the blood taking the place of plethora or anaemia.

VII. *Of Muscular Efforts.*—He might make the same remark in regard to muscular efforts, which he had done in regard to disease of the heart—those efforts which opposed resistance to the reflux of the venous blood, were much more efficient causes of the apoplectic seizure than those efforts which augmented the momentum of the arterial blood. Thus we rarely heard of the occurrence of apoplexy during the violence of the race, during the ascent

of mountains, &c., but such an occurrence at the water-closet was by no means uncommon ; and we all knew how apt the parturient efforts were to induce congestion of the brain, and the consequent apoplectic seizure. It would be most interesting to correct our ideas on these subjects by a cautious appeal to facts.—*London Lancet.* April 23, 1842.

Case of Venous Hæmorrhage from an Abscess resulting from Erysipelas Phlegmonoides. By ROBERT STORRS, Esq., Doncaster.—William Heaton, a strong muscular man, aged 36, by trade a master shoemaker, was seized, Dec. 14, 1839, with severe febrile symptoms, accompanied by an extensive diffused swelling over the front of the throat, affecting its cellular texture from the chin to the chest, of a phlegmonous erysipelatous character. In spite of leeches, fomentations, poultices, &c., and other local and general treatment, suppuration commenced, and on the 21st, evident fluctuation could be felt on the left side of the larynx. As the constitutional symptoms were very severe, I opened the abscess immediately, and above a pint of excessively offensive and sanguous pus was discharged, accompanied with some large shreds of what appeared then to be dead cellular structure. From this opening, which was a very free one, an immense discharge took place, at a moderate computation, about a pint or more daily ; and the sac of the abscess was found to extend itself from the left of the larynx and trachea, to the nape of the neck on that side, and from the angle of the jaw to the clavicle. The discharge of pus continued without abatement, and of a most offensive smell ; severe symptoms of constitutional irritation and of exhaustion came on, and he required the constant administration of wine and of opiates.

On the 30th some hæmorrhage occurred from the opening, evidently of venous blood, which was controlled by pressure over the internal jugular, a little below the angle of the jaw ; this pressure was kept up by mechanical means, and though the discharge of pus continued, no blood escaped until the night of the 1st of January, when it occurred, and was again stopped. During the following night, however, it again burst forth, and on my arrival I found him moribund. No examination was permitted after death, but there could be no doubt that the abscess had implicated the internal jugular vein, the coats of which had been destroyed, and had been probably partly cast off at the time of the abscess being opened, and that a large discharge of blood had been then prevented by the deposition of coagulable lymph at the venous orifice.—*Provincial Medical and Surgical Journal.* April 2, 1842.

[Cases of considerable hæmorrhage from the progress of diffuse inflammation of the cellular tissue are very rare, though the great vessels are not unusually isolated by the sloughing of the free tissue around them, sometimes to the extent of several inches. Our memory supplies us with but one case of somewhat analogous character. It occurred in the Pennsylvania Hospital, many years ago. The patient had recently recovered from a protracted fever when he met with a compound fracture of the leg, succeeded by erysipelas phlegmonoides. While engaged some days after the admission in dressing the limb, in which there were a number of orifices, we were shocked by

the occurrence of a torrent of hæmorrhage bursting instantaneously and in full tide through all the openings simultaneously. Both venous and arterial currents were distinctly noticed. No large vessel was implicated in the original accident, and the bleeding could not have been the result of the opening of either of the principal arteries or veins of the limb, for it was at once too profuse and too widely diffused to admit of this supposition. Three or four seconds could scarcely have elapsed before the hæmorrhage was checked by the pressure of the thumb upon the femoral artery in the groin, yet the loss of blood was so tremendous that the patient succumbed in a few hours, it having been decided that amputation was out of the question, in consequence of excessive debility. Might not the hæmorrhage in the case of Mr. Storrs have been derived from the smaller vessels implicated in the sloughs, rather than from the jugular vein? We have seen the femoral vessels, through the usual cutaneous orifices in erysipelas phlegmonoides, totally detached in the gaping cavity from which the sloughs had been drawn and the pus expelled by pressure; and they were traced in this condition for many inches, yet the patient recovered without hæmorrhage.

In some forms of gangrene which are not confined, like the disease just mentioned, to one particular tissue, the great vessels are more frequently involved in the sloughs without being previously obliterated. It happened to us once to lose a child about ten years of age, by the rupture of the carotid artery from the gangrene attendant upon putrid sore throat. R. C.]

On the Employment of the Chloride of Zinc as an Escharotic. By ALFRED M'CLINTOCK, Esq.—“The following cases, in which the chloride of zinc was employed, occurred in the County Louth Infirmary, under the care of Dr. Brunker, by whose permission I am enabled to offer them to the readers of the Dublin Medical Journal. The manner in which the chloride of zinc was used was similar to that employed by M. Conquoin, who first introduced this remedy into practice: one part by weight of the chloride, and two parts of flour were mixed together by adding a sufficient quantity of water to form them into a paste; this was spread over the entire surface of the diseased part, care being taken to prevent it coming into contact with the healthy structures in the neighbourhood; a piece of dry lint was then laid on, and lastly, a piece of thin bladder, moistened, was placed over all and secured with strips of adhesive plaster. The patients were confined to their ward but not to bed.

“CASE I.—John Maguinness, *ætat.* 55, a stout, healthy countryman, was admitted 19th May, 1840, with a cancerous tumour, of a globular form, and about the size of a walnut, situated on the superior part of the pinna of the right ear; states that it began like a wart nearly four years ago, since which time it has gradually been increasing, and has become the source of much pain and annoyance. Its surface presents no peculiarity beyond what is usually observed in cancerous tumours, namely, being rugged, slightly fissured, and of a dirty brown colour, hard to the touch, and firmly attached to the subjacent parts. He got a purgative draught upon admission,

and on the following day the paste was applied in the manner already described, over the entire extent of the morbid growth.

“ 21st. Complains of a great increase of pain, which he says deprived him of nearly all rest. No acceleration of pulse—some redness immediately about the base of the tumour.

“ 22d. Pain much less, somewhat more redness.

“ 23d, 24th. Pain continues to diminish ; a small line of separation beginning to form around the attachment of the tumour.

“ 25th. (Fifth day since application of paste.) The slough came away to-day in a dry shrivelled state, except at the surface of the attachment, and bringing with it the entire of the disease. The ulcer left presented a healthy appearance, and was simply dressed with dry lint ; the processes of granulation and cicatrization went on very favourably up to the 4th June, at which time he left the hospital ; however, only a very small portion of the ulcer remains uncicatrized. The shape and figure of the ear are not, in any way, altered.

“ The second case was in a man, *ætat. 53*, who had an ulcer rather larger than a sixpence, nearly circular, and having rounded edges, its surface smooth and glazed, of a dusky red hue, and destitute of any distinct granulations. It was not painful, and very slow in its progress, and had resisted various treatments. A thin stratum of the chloride of zinc paste was spread over it. During that night and the following day he suffered great pain. The slough separated on the sixth day, leaving a small portion of the bone exposed, the *exfoliation* of which protracted the healing of the part.

“ In the third case the man was *57*, of a healthy constitution, having a cancerous tumour on the left side of the nose, of three years' standing. He suffered lancinating pains in it. The base of the tumour was as large as a fourpenny, its surface elevated and convex, of a dirty brown colour, and rough, the attachment to the subjacent parts firm, no discolouration of the surrounding skin. He suffered pain for near three days after the application of the paste, and suffered slight constitutional disturbance, marked by rigor and nausea. The slough separated on the fifth day. The sore was healed on the eighteenth day.

“ These two last cases have since been under Mr. M'Clintock's observation, and there has been no return of the disease. He has lost sight of the other case.”

In commenting upon the result of the above cases, he remarks :

“ 1st. That in each of them the application was productive of much pain, which lasted for twenty-four or forty-eight hours, after which it began to diminish.

“ 2d. In only one instance, Hanlon's case, were there any symptoms that could be considered indicative of constitutional disturbance, and they were such as generally usher in an attack of erysipelas ; such, however, did not supervene, as these unpleasant symptoms disappeared under the use of simple remedies.

“ 3d. In two of the cases the slough separated on the fifth day, and in the other on the sixth. The ulcer left, in each instance, was remarkably healthy, and cicatrized rapidly ; so far confirming Dr. Ure's account of this escharotic in the ‘Cyclopædia of Practical Surgery’ (Art. ‘Caustics.’)

“ 4th. The action of the chloride in both the cases of cancer was exclu-

sively confined to the morbid structure, and destroyed it to its entire extent. In contemplating these two facts, the conclusion is forced upon our mind, that the chloride of zinc exerts a specific action on the cancerous growth."

Dublin Jour. Med. Sci. May, 1842.

M. Andral on the Changes of the Blood in Disease.

Sanguineous Temperament.—According to the researches of MM. Andral and Gavarret it would seem that the common notion that the blood in persons of this temperament contains a larger quantity than usual of its solid or fibrinous constituent is not strictly correct. There is but little increase in the proportion of this element; whereas that of the red globules is generally very considerably augmented—from 127 to 135 or 140 parts in 1000. If we examine the blood of such persons before it coagulates, it is found to be of an extremely bright red colour. The clot is usually large, from the retention of a large quantity of the serum in its meshes; but its consistence is not greater than in health; and often it is even less. One of the chief characters of this blood is that *it very rarely exhibits a perfect buffy coat*—although the very contrary opinion is so generally asserted: This circumstance is owing to the small proportion of the fibrine in comparison with that of the globules, which, as we have said, are predominant.

In persons of the sanguineous temperament, all the functions of the body are usually performed with great activity; life, so to speak, is in excess; and this excess is proportionate to the increase of the red globules. The digestive process goes on rapidly and efficiently; the respiratory apparatus is largely developed; and the minute capillary vessels are always more highly injected than in persons of other temperaments. The heat of the body is high; the perspiration is easy; and there is an abundant secretion of deep-coloured urine, which usually contains a large quantity of saline matter. The energies of the brain are easily exalted; the passions are quick, and vehement; and yet the sensibility is by no means excessive, and never so acute as in persons of the nervous temperament. Hence the class of diseases known by the term *neuroses* is not common in plethoric individuals. It would seem that, as the proportion of the red globules increases, so the sensibility of the system diminishes, and *vice versa*. An extreme and morbid acuteness of the nervous system is well known to be a characteristic symptom of chlorosis and anaemia.

The pathological conditions of most frequent occurrence in plethora are congestion, haemorrhage, and fever. Genuine inflammation is much less frequent; we might even assert—in opposition indeed to the generally received opinion—that *plethoric persons are not more liable to the phlegmasiae than those of other temperaments*. From the very circumstance of the globules being in an increased proportion, the normal relation between the proportion of this element and that of the fibrine is disturbed, and the consistence of the blood is rendered actually less than it is in health. Blood-letting, from its marked influence in reducing the proportion of the globules, always speedily relieves the diseases arising from plethora; its influence on the fibrine is much less decided and speedy.

The Lymphatic Temperament and Anæmia.—The general fact to be mentioned in reference to this temperament is the diminution of the physical

forces, and an enfeebled state of many of the functions of the body. There is usually a strong disposition to the development of scrofulous disease. M. Lecanu has stated, and M. Andral confirms the opinion, that the proportion of the red globules is always low in persons of this temperament. The surface is usually pale and puffy ; the iris exhibits a more than ordinary clear hue ; and the pilous system is but little developed. When any phlegmasia occurs in scrofulous persons, it proceeds in its course slowly, and less readily to resolution—a termination which is always long of being fairly established, and is apt to be interrupted by a variety of accidents.

The lymphatic temperament, when much exaggerated, leads, as we have already said, to the development of scrofula ; the anaemic to that of chlorosis. In spontaneous or idiopathic anæmia, the proportion of the fibrine is often but little diminished ; but, in that produced by great haemorrhages, the blood is always deficient in this element. The proportion of the globules is sometimes remarkably diminished ; it has been known to fall from one hundred and twenty-seven—the normal standard—down to forty, and even as low as twenty-seven.

Although all the physical functions suffer, whenever there is any considerable diminution of the red globules the energies of the brain are often surprisingly little affected ; the sensory functions are usually exalted ; and the activity of the mind is not unfrequently increased. But the digestion is always more or less disturbed, and the patient often suffers exceedingly from one of the most severe and intractable forms of gastralgia, as well as from headaches and confusion of the sight, and of the other especial sensations. The actions of the heart and lungs, too, are very frequently more or less severely deranged. Every practical physician is well aware how much anaemic patients usually suffer from violent palpitations, and that the tactus of the heart is often accompanied with a blowing sound, such as is heard in cases of contraction of the arterial orifices. The blowing sound may be either constant, or it may be intermittent. The smaller that the proportion of the red globules is in the blood, the more constant this abnormal sound generally is.

It must, however, be admitted, that exceptions are sometimes met with to this assertion ; and that, in some rare instances, where there has been no deficiency of the red globules, and no existing organic disease of the orifices of the heart, the blowing sound has been heard.—*Med. Chirurg. Review.* April, 1842.

Penetrating Wounds of both Lungs—Recovery.

[In the Provincial Medical and Surgical Journal for April 2d, 1842, Mr. A. N. Ruddock of Bristol gives the following interesting case of a police officer, aged 22 years, stabbed in both sides of the chest by a robber. It is intended to illustrate the good effects of fearless venesection.]

I saw him between five and six o'clock ; he was tolerably collected, but in a state of extreme exhaustion, from the combined circumstances of the severe nature of his wounds and the consequent loss of blood, which I found to have been considerable, and from the desperate struggle in which he had

been engaged ; a considerable quantity of frothy blood was passing from his mouth ; he had great difficulty of breathing, with constant cough, and a very small pulse varying from 140 to 150.

On examining the chest on the right side, I found a penetrating wound of rather more than an inch in width between the seventh and eighth ribs, about four or five inches below, and in a direct line from the axilla ; air was passing freely through the wound, and there was considerable emphysema. On the left side there was a corresponding wound, also, between the seventh and eighth ribs, but higher up and more posterior, situate almost in a direct line from the inferior angle of the scapula ; very little air had escaped into the cellular membrane, but on passing the hand over the latissimus dorsi, the air was felt crackling under a considerable portion of that muscle. No doubt could exist as to the lungs being wounded on both sides, and I considered the prognosis as unfavourable as it could well be. As there was no fracture of the ribs, and the wounds were clean, I closed them both with adhesive plaster, applied warmth to the extremities, as he was shivering with cold, and administered some tea.

By nine o'clock, A. M., reaction had taken place ; at ten o'clock his pulse had become tolerably steady at 120. Venesection to twenty ounces, which produced faintness ; ordered a mixture of spermaceti and ipecacuanha wine to be taken once in three or four hours ; to take nothing of any kind except tea and toast and water.

At three, P. M., he was labouring under more severe symptoms ; his breathing was much oppressed ; he had a good deal of pain and uneasiness about his chest, with a full pulse. Venesection to thirty-four ounces, which made him faint, and on recovering he expressed himself as much relieved.

At nine in the evening his symptoms were again aggravated, but not to so great an extent ; his pulse had acquired so much firmness and strength that another blood-letting was readily foreseen, if not then absolutely necessary, and I took thirty ounces before he was faint ; I ordered him ten grains of opium and soap pill, and left him for the night, with strict orders to be called if the symptoms returned.

I saw him on Friday morning at six o'clock ; he had passed a tolerable night, and his state presented no symptoms which demanded interference. As I was desirous of obtaining some information about the wounds of the lungs, I removed one strip of plaster, and found that the air was passing with much less freedom than twenty-four hours ago, although the external wounds, in consequence of the continued oozing of blood, were not healing by the first intention. The wounds were again immediately closed ; one ounce of castor oil was administered. Mr. R. Smith, the senior surgeon of the infirmary, saw him to day ; he considered he would have a hard struggle for it, and recommended a small abstraction of blood in the evening.

Eight, P. M. Has continued up to this time pretty much as in the morning ; bowels relieved. I bled him to ten ounces ; repeated the opium pill.

Saturday morning. He has passed a tolerable night again, and is free from pain ; pulse soft, but quick. He takes the spermaceti mixture, from which he says he finds much relief and comfort. No air whatever passes through the wounds.

Sunday morning. He remains in a quiet state ; the giant has evidently been conquered since Thursday evening. The external wounds are not at

all disposed to heal, but those of the lungs are apparently closed. Allowed a small teacupful of thin bread and milk, which is the first food he has taken.

From this time he slowly but gradually progressed, and he left his bed about three weeks after the injury. The bloody expectoration continued for five or six days, and the emphysema gradually subsided. The wound on the right side of the chest did not heal for a month. Adhesion of the pleura on the right side has taken place to a considerable extent, covering a space as large as the hand; on the left side the state of the part is not so easily ascertained, owing to the thick layer of muscle.

He subsequently was blistered, and took iodine for some time. He remains in the force on *reserve* duty, which does not expose him to cold or wet. He has had several attacks of shortness of breathing and pain in the side, but they have all given way to a day's confinement in bed, and a mixture of tartar emetic. These attacks have latterly been less frequent. He has got married, and at the time of my writing this he tells me his health has much improved within the last twelvemonth.

Use of Drastic Purgatives.—Two cases are recorded in the "Bulletin Général de Thérapeutique," in which the continued use of drastic purgatives cured obstinate cutaneous diseases. The first, a poor, aged woman, who had been troubled with prurigo for upwards of two years, and had been under the care of a medical man, who had directed venesection, alkaline drinks and baths, milk diet, changed afterwards for as generous diet as she could procure; lotions prepared with bitter infusions; and finally, sulphur ointment, from all of which she derived only temporary benefit; was at last ordered by another practitioner to take the tartarised antimony, two grains for a dose. The first not producing any effect, she repeated it of her own accord, when its use was followed by free and abundant stools, but no vomiting. Relief following, the dose was repeated every eight or ten days, the same purgative effect being caused, and the disease gradually disappearing. At the end of three months the patient was cured.

The subject of the second case was a woman, fifty-six years old, a patient of Andral's, at la Charité, who was cured of psoriasis by repeated doses of German brandy, a drastic cathartic, composed of jalap and scammony infused in brandy, which equally produced frequent and abundant evacuations.

Mention is made incidentally of another patient of Andral's, who, while labouring under a severe attack of angina tonsillaris, was ordered a powerful cathartic, which produced more than sixty stools, the pulse falling from 104 to 76, and the patient was cured.—*Provincial Medical Journal.* May 28, 1842.

[The physician should, however, take care lest the remedy prove worse than the disease—many individuals would certainly not bear these large doses of drastics.]